

NOTE: As this is a performance based specification offerors are reminded that each answer should not be regarded as design direction.

Q: Reference paragraph 3.4.4: please clarify definition of "integral fuel tank(s)".

Question: Is it required that the tanks be integral to the welded hull structure, or is a bolt-on protected tank considered integral?

A: As this is a performance based specification, bolt-on, protected fuel tanks will be acceptable.

Q: Reference paragraph 3.4.4: Statement for each fuel tank shall be supplied with a drain plug, at its lowest point, removable with common hand tools and without requiring removal of any other vehicle component.

Question: Is removal of protective cover acceptable?

A: Yes, as long as the removal of the protective cover can be accomplished with common hand tools as required by the purchase description.

Q: Reference paragraph 3.4.6: The statement is transmission shall have a power take off opening.

Question: Will this provision be used for equipment other than specified by manufacturer?

A: Equipment connected to the PTO may be a non-OEM component, such as an electrical power generator.

Q: Reference paragraph 3.8.1: Statement is the battery shall be mounted above fording depth (see 3.13.2.6), The MMPV shall be capable of fording salt or fresh water to a depth of 36 inches (threshold) without kit or preparation. (40 inches, objective)

Question: Is this a mandatory requirement with sealed/gel batteries?

A: The MMPV electrical system shall be operable while the vehicle is at its maximum fording depth, any potential short to the electrical system must be addressed, regardless of the type of batteries. If the batteries are mounted below the vehicle's fording depth, the offeror is required to show how the batteries and leads are protected from water ingress. See revised PD.

Q: Reference paragraph 3.9.2: The statement is made, "the MMPV shall have installed a vehicle Diagnostic Connector Assembly (DCA) harness that will allow testing a vehicle without disassembly IAW the Design Guide for Vehicle Diagnostic Connector Assemblies (DCA) Report No. CR-82-588-003 Rev 1, Feb 1998."

Question: is this an up-dated requirement? Vehicles like the FMTV A1 and A1R do not have a DCA connector.

A: The MMPV requirement for the DCA is as stated.

Q: Reference paragraph 3.10: "The winch shall be provided with a remote control, which will allow the winch to be operated from a minimum distance of 12 feet from the vehicle. "

Question: is winch operation from within vehicle considered as acceptable remote control to protect winch operator?

A: Yes, operation of the winch from within the MMPV is acceptable.

Q: Reference paragraph 3.11.4: "MMPV to travel not less than 50 miles at not less than 50 mph after the tire is flat"

Question: is the run-flat requirement of 50 miles at 50 mph correct?

See revised PD for clarification.

Q: Reference paragraph 3.11.5.3: Statement is an engine retarder shall be furnished which uses engine compression to assist dynamic braking.

Question: Is an exhaust brake acceptable?

A: As this is a performance based specification, the engine retarder requirement can be met with an exhaust brake.

Q: Reference paragraph 3.11.6.2: "The driver's seat shall be adjustable; fore and aft and up and down, both armrest and backrest, and located to provide maximum unobstructed visibility for the operator."

Question: is a reclining function required on the driver's and co-driver's seats?

A: Yes, reclining function is required for the front seats. The purchase description will be updated to reflect this requirement.

Q: Reference paragraph 3.11.6.11: a list of communication devices is provided. The list does not mention MTS as a communication device for this vehicle. Therefore it is only equipped to work on the Tactical Internet (FBCB2 and BFT). It is our understanding that the BFT is actually an MTS transceiver dedicated for use as one leg of the FBCB2 network.

Question: Is there a reason why the MTS system is not included as one of the communication devices?

A: There is no requirement for MTS. The listed communications equipment to be included in the MMPV is the current list, but the government reserves the right to modify the list as new technology becomes available and/or for vehicle interior space or budgetary reasons. Reserve electrical system capacity is desired.

Q: Reference paragraph 3.11.6.7: "current configuration" is mentioned.

Question: Is there already a vehicle designated as the MMPV? If so, what is this vehicle?

A: The PD will be revised to eliminate, "current configuration." There has been no vehicle officially designated as the MMPV. This PD covers the Program of Record as a competitive source selection process.

Q: Reference paragraph 3.11.6.14: "The MMPV shall be provided with the capability to accept a Common Remote Operated Weapons Station (CROWS) or a ring and bearing type weapon mount."

Question: does switching between RCWS and M1114 ring mount have to be accomplished using only on board tools?

A: The PD is being revised to include the requirement for the MMPV to accept either a remote weapon station or the M1114 weapon ring mount. The ability to accept a remote weapon station or the M1114 weapon ring mount will likely require the use of a crane or other shop equipment for interchange; however, any solution that will minimize the logistics burden is desired.

Q: Reference: paragraph 3.13.2.4: Statement is for forward dash speed of 0-50 mph in not more than 18 seconds (threshold), and reverse of 0-20 mph in not more than 4 seconds (threshold).

Question: Is this correct specification for required vehicle GVW?

A: There is no required vehicle GVW.

Q: Reference paragraph 3.16.7.1: the statement is made, “logistics support shall not be lower than DS level.”

Question: Is this a request for Contractor Logistics Support (CLS) to the DS level or is this guidance for the maintenance tasks to be provided in the technical manuals?

A: The intent of this paragraph is to achieve maximum maintainability. The purchase description will be revised to reflect this.

Q: Reference paragraph 3.16.7.2: “Capable of forward dash speed of 0-50 mph in not more than 18 seconds (threshold), and reverse of 0-20 mph in not more than 4 seconds (threshold). (12 seconds forward; 3 seconds reverse, objective)”

Question: is there a specific TOE which applies to the 5% threshold, or is any tool identified through parts screening considered as “standard Army inventory”?

A: The intent of this paragraph is to minimize the introduction of special tools and equipment into the Army inventory. See revised PD for clarification.

Q: Reference paragraph 3.16.7.3: “The time required to accomplish daily preventive maintenance checks and service (PMCS) on the vehicle shall be not more than 30 minutes”

Question: does the 30 minute PMCS restriction allow for use of all four crewmembers?

A: As this is a performance specification, the offeror is encouraged to detail what tasks are required for PMCS, how long it will take, and the personnel required. See revised PD for clarification.

Q: Reference paragraph 3.16.9: “essential function” failures (EFF) refers to 6.8.9. There is no 6.8.9 in the RFI.

Question: Is the EFF the same as “major failure” and results listed in paragraph 6.7.11?

A: The PD will be revised to provide more information about “essential function failures.”

Q: Reference paragraph 3.18.5.5: “Each vehicle shall be provided with a fire extinguisher in accordance with A-A-393, and shall be securely installed inside the cab in a location readily accessible to the operator.”

Question: please clarify that hand-held fire extinguisher must be within reach of driver or crew member?

A: The mounted fire extinguisher shall be readily accessible to all crew members and may include additional fire extinguishers.

Q: Reference paragraph 4.2: With respect to First Article Inspection,

Question: do we need to inspect welds on sub assemblies designated as major failures as described in paragraph 6.7.

A: Yes sub assembly welds that could lead to major function failure will be inspected.

Q: Reference paragraph 4.5.2.2: The statement is made, “the contractor will demonstrate via testing with current U.S. Army Unit Level Test Equipment that the vehicle's DCA harness outputs is transmitted to the DCA Connector.”

Question: Is there a reason why an embedded diagnostic computer is not included in this purchase description?

A: Paragraph 3.16.7 lists embedded diagnostics as a desired characteristic.

Q: Reference: paragraph 4.5.6.3.1: Statement is the ride quality shall be measured IAW ISO 2631. Nonconformance to 3.18.4.8 shall constitute failure of this test.

Question: Should this read 3.18.5.8 as there is no 3.18.4.8?

A: The PD will be revised to reflect the corrected paragraph number.

DRAFT PURCHASE DESCRIPTION
MEDIUM MINE PROTECTED VEHICLE
TACOM

Clause /Condition /Serial	Requirement	Question/ Comment	Response
3.4.1	<p><u>Engine.</u> The MMPV shall be supplied with a liquid cooled diesel engine capable of the performance specified herein while operating primarily with aviation, kerosene type turbine fuel, grade JP-8 in accordance with MIL-DTL-5624. The engine shall also be capable of performing as specified herein while operating on diesel with sulfur content of up 3,000 ppm. The engine shall be compliant with the EPA emissions standards for on-highway diesel engines.</p>	<p>This paragraph addresses JP-8 fuel in reference to MIL-DTL-5624. Upon review MIL-DTL-5624 we believe this specification is applicable only to JP-4 and JP-5 fuels, not JP-8. Recommend a more appropriate fuel specification be referenced or the reference be entirely deleted.</p>	<p>The purchase description will be updated to revised engine emission requirements.</p>
3.4.1	<p><u>Engine.</u> The MMPV shall be supplied with a liquid cooled diesel engine capable of the performance specified herein while operating primarily with aviation, kerosene type turbine fuel, grade JP-8 in accordance with MIL-DTL-5624. The engine shall also be capable of performing as specified herein while operating on diesel with sulfur content of up 3,000 ppm. The engine shall be compliant with the EPA emissions standards for on-highway diesel engines.</p>	<p>This paragraph also has conflicting requirements: (1) engine must operate using JP-8 fuels and (2) engine shall be compliant with EPA emissions standards for on highway diesel engines. At the time of contract award, 2007 EPA-compliant engines will be currently in use, and these engines require the use of low sulphur fuels (<15 ppm). JP-8 fuel has significantly higher sulphur content (500-3,000 ppm) and is an incompatible fuel for use in 2007 EPA compliant engines. Recommend the specification require (1) compatibility with JP-8 fuel and (2) use of 2004 EPA-compliant engines which are compatible with JP-8 turbine fuel.</p>	<p>The purchase description will be updated with revised cooling system</p>
3.4.2	<p><u>Cooling system.</u> The cooling system shall provide adequate cooling to the engine, in any of the environments specified herein, operating at 85 percent of the rated horsepower. If the system is also used to maintain the temperature of the transmission, it shall do so without degradation of cooling to the engine, as described.</p>	<p>The requirement states “The cooling system shall provide adequate cooling to the engine....operating at 85% of rated power”. The current requirement is not clear and open to interpretation many ways. A better way to</p>	<p>The purchase description will be updated with revised cooling system</p>

	<p>The thermal conditions of the engine shall be monitored by a coolant temperature gauge that provides a constant readout at the operator's position. Initial fill of the cooling system shall be a mixture of 50 percent water and 50 percent antifreeze conforming to A-A-52624. The cooling system shall be able to handle hot, dusty (very fine particulates) desert environments and be properly designed for sustaining temperatures resulting from towing operations as specified herein when operating in a steady state condition. If the cooling system fan is provided with a thermostatic control, in the event of its failure, the fan shall continue to operate while the engine does.</p>	<p>define cooling system performance, which is consistent with other US Army truck requirements, is to specify demonstrated capability of 0.55 TE/Wt (Tractive Effort to Weight ratio) at an ambient capability of 120° F. and the ability to operate at rated power without exceeding the temperature limits. Specifying this level of capability will ensure the cooling system is appropriately sized for military applications in all of the specified environments.</p>	<p>Threshold values will remain at 500 miles.</p>
3.4.4	<p>Fuel tanks. The MMPV shall be provided with integral fuel tank(s) of a capacity that will permit a range of not less than 500 miles (threshold, 700 miles objective) at an average speed as specified in the classified addenda to this purchase description. Each fuel tank shall be supplied with a drain plug, at its lowest point, removable with common hand tools and without requiring removal of any other vehicle component. Manual shut-off valve(s) shall be furnished at the tank(s), on the fuel supply line before the fuel filter(s); labeled "FUEL SHUT-OFF", with double ended arrows indicating the direction of operation and the functional result (i.e. open, closed). Readily discernable at or on the fuel fill port, or its cap, "JP8/Diesel Fuel" shall be indelibly marked in letters not less than 1-inch high. The fuel fill port(s) shall be provided with removable strainers, and shall accept fuel from a 5-gallon can conforming to A-A-52513 or A-A-59592, by a person on the ground. Fill port(s) shall be supplied with captivated safety filler cap(s) made to preclude mud build-up and intrusion into the tank. A sealed cap and vent shall be furnished if the port is below fording depth (see 3.13.2.6). The fuel system design shall be such that fuel spilled during refueling will not contact any part of the exhaust or electrical system. The fuel system shall be protected to the same levels as specified in 3.16.10. An active or passive fire protection method shall be provided to allow safe egress of the crew and minimize fire damage to the vehicle when the fuel tanks are penetrated by an IED or other overmatching ballistic threat.</p>	<p>The threshold requirement of 500 miles seems excessive when compared to all of the other vehicles within the US Army fleet. Consider reducing the Threshold requirement to the range of 300 miles for consistency.</p>	

3.4.4	<p>Fuel tanks. The MMPV shall be provided with integral fuel tank(s) of a capacity that will permit a range of not less than 500 miles (threshold, 700 miles objective) at an average speed as specified in the classified addenda to this purchase description. Each fuel tank shall be supplied with a drain plug, at its lowest point, removable with common hand tools and without requiring removal of any other vehicle component. Manual shut-off valve(s) shall be furnished at the tank(s), on the fuel supply line before the fuel filter(s); labeled "FUEL SHUT-OFF", with double ended arrows indicating the direction of operation and the functional result (i.e. open, closed). Readily discernable at or on the fuel fill port, or its cap, "JP8/Diesel Fuel" shall be indelibly marked in letters not less than 1-inch high. The fuel fill port(s) shall be provided with removable strainers, and shall accept fuel from a 5-gallon can conforming to A-A-52513 or A-A-59592, by a person on the ground. Fill port(s) shall be supplied with captivated safety filler cap(s) made to preclude mud build-up and intrusion into the tank. A sealed cap and vent shall be furnished if the port is below fording depth (see 3.13.2.6). The fuel system design shall be such that fuel spilled during refueling will not contact any part of the exhaust or electrical system. The fuel system shall be protected to the same levels as specified in 3.16.10. An active or passive fire protection method shall be provided to allow safe egress of the crew and minimize fire damage to the vehicle when the fuel tanks are penetrated by an IED or other overmatching ballistic threat.</p>	<p>The specification requires "an active or passive fire protection method". Suggest more clearly defining what is expected for the "passive" requirement and consider establishing this as a "Threshold requirement". Also, more clearly define expectations for the "active" requirement and establishing this as an "Objective requirement".</p>	<p>A fire protection system will remain a requirement for the fuel tanks.</p> <p>Passive: describes such systems as a self-sealing liner for the tanks or a powder panel, as examples.</p> <p>Active: could include an exterior foam/powder dispersing system. A POC for fuel tank fire protection: rskaggs@arl.army.mil.</p>	<p>The purchase description will be revised with updated language for the transmission.</p> <p>The electrical system</p>
3.4.6	<p>Transmission. The vehicle shall be equipped with an automatic transmission and meet the requirements of 102.1 of MIL-STD-1180. The automatic transmissions shall have a downshift inhibitor and an override to preclude inadvertent reversal of vehicle direction. The transmission shall have a power take off opening.</p>	<p>Recommend adding terminology to ensure an automated manual transmission is precluded from meeting the specification. Added terminology should refer to the ability to shift from one gear to another without interruption of power and torque to the driveline.</p> <p>Specifying this capability will ensure that an automatic transmission is offered.</p>	<p>Recommend removing the statement "An auxiliary power system may be used".</p>	<p>Electrical system. A 24-volt electrical system shall be furnished in accordance with FMCSR 393.27 through 393.33. The electrical</p>
3.4.7				

	<p>system shall provide sufficient amperage to operate all electrical components of the vehicle simultaneously, to include lighting, and power to the communications equipment, as well as charge the battery. An auxiliary power system may be used. The system shall incorporate reverse polarity protection and means to prevent starter engagement when the engine is running. Each electrical circuit shall be protected by a circuit breaker or fuse, with labels indicating the function served by the circuit. Spare fuses, in each amperage rating used on the vehicle, shall be present and located on the fuse panel. A wiring harness and connector shall be furnished, to mate the vehicle with the electrical system on a towed vehicle. The connector shall mate with military connectors in accordance with MS75020; be furnished with a spring-loaded cover; and labeled "TRAILER CONNECTOR" in letters not less than 1.0 inch high. All connectors and switches shall be protected from adverse effects of the elements.</p>	Specifying only an integrated vehicle-based alternator electrical system will ensure that a stand-alone generator, which may require exiting the vehicle to start and will potentially require a separate wiring system or series of extension cords, will not be used to meet this requirement. Additionally, since most all of the equipment is 24V DC powered, a stand-alone AC generator will require additional power conditioning equipment, which can be big, expensive, inefficient, and unreliable.	paragraphs of the purchase description will be revised.
3.6.1	<p><u>Headlights.</u> Vehicle headlights and wiring shall be in accordance with requirement 108.1 of MIL-STD-1179. Headlights shall be mounted in a protected location. The rated luminous flux at the rated wattage of each headlight shall be a minimum of 3200 lumens when tested to SAE J2009. The color of light emitted from the headlights shall fall within the "white" light chromaticity boundaries as defined in SAE J578 following seasoning and after attaining steady state. Each headlight shall be rated at a minimum luminance of 6400 candela per square centimeter as measured to SAE J1383 at nominal voltage. The headlights shall meet the photometry requirements at minimum and maximum voltage range for stabilized light output, as specified by the manufacturer. The vehicle shall be equipped with turn signals and emergency flashers. Emergency flashers, when activated, shall be overridden by the brake lights when the brakes are applied.</p>	This specification seems overly complicated and is not clear upon initial review exactly what is desired. If a specific style of headlights are desired (i.e., halogen or HID or LED) we recommend it be directly stated. Because headlights are potentially a high-maintenance items (i.e., field replaced relatively often), we recommend that the specification require a solution that is consistent and interchangeable with existing US Army inventory (i.e., common with HMMWV, FMTV, HEMTT, PLS, or HET).	The headlights requirements in the purchase description will be revised.
3.6.3	<p><u>Interior lighting.</u> The vehicle shall be equipped with instrument lighting and indicators, readily discernable to all personnel. Intensity of instrument and gauge lighting shall be adjustable. Interior lights, gauges and instruments, to include warning lights, shall not emit energy outside of the 380-700 nanometer wavelength range. Recommend resolving this conflict by adding the words</p>	There is conflicting requirements in this paragraph and 3.6.4 Crew Lighting. White lights emit energy outside of the 380-700 nanometer wavelength range. Recommend resolving this conflict by adding the words	The interior lighting paragraph(s) in the purchase description will

	wavelength range.	“while in blackout mode” to the end of the last sentence of this paragraph.	be revised.
3.6.4	<u>Crew lighting.</u> Overhead dome lights shall be provided in the crew area with cab area controls and individual on/off switches for each light. The dome lights shall be equipped with both white and red/military blackout lights. The dome lights shall be able to be switched manually from white to red/military blackout and shall switch automatically from white to red/military blackout when any door to the vehicle is opened.	Our experience in testing crew lighting when used with night vision equipment indicates that red blackout lights should not be specified. For compatibility with night vision equipment, it is necessary to use crew lighting that is in the blue-green color spectrum. Additionally, reference the Army Field Manual FM-20-3, “ <i>Red filters on vehicle dome lights and flashlights, while designed to protect a soldier’s night vision, are extremely sensitive to detection by NVDs.. To reduce chances of detection, replace red filters with blue-green filters...</i> ” Recommend changing the requirement from “red/military blackout” to “blue-green military blackout” that is compatible with night vision equipment.”	The crew lighting paragraph(s) in the purchase description will be revised.
3.8	<u>Battery.</u> The battery(s) shall be of sufficient size to start vehicle at all environmental conditions specified herein. The batteries shall have a total reserve capacity rating of not less than 640 minutes and the total cold cranking rating shall be not less than 2500 amperes, when measured in accordance with SAE J537. Battery cables conforming to SAE J1127 shall be furnished with insulated terminal covers. Positive and negative cable terminals shall be identified with a red sleeve, labeled "+" and a black sleeve, labeled "-", respectively.	Our analysis of this requirement indicates that the MMPV will need to be fitted with quantity eight (8) model 6TMF military batteries. Note that only two batteries are required to start the diesel engine, so presumably the additional batteries are necessary to power radios and other electronic equipment. Recommend reviewing the requirement to ensure the appropriate reserve capacity and cold cranking rating is specified.	The battery requirements in the purchase description will be revised.
3.8.1	<u>Battery mounting.</u> The battery shall be mounted above fording depth (see 3.13.2.6) and be accessible for removal and service without requiring removal of components other than a cover, if one is provided. Battery mounting shall not interfere with access to components; shall support the entire battery base; and be positioned so that the electrolyte level is discernable without removing the battery. Battery restraining clamps shall be provided to hold the battery in a fixed position. The battery	The last sentence specifies “...two Military 6T batteries...” Recommend changing “6T” to “6TMF”.	The battery mounting requirements in the purchase description will be revised.

3.10	<p>compartment shall have provisions for drainage and venting, and shall be protected against corrosion and short-circuiting. If feasible, the battery compartment shall be sized to fit two Military 6T batteries per ATPD 2206.</p> <p><u>Winch.</u> The MMPV shall be provided with a front mounted vehicle self-recovery winch rated at not less than 15,000 pounds bare drum first-layer, single-line pull and equipped with overload protection. The winch shall be equipped with a minimum of 75 feet of cable. A roller fairlead shall be provided with the winch. The winch shall be provided with a remote control, which will allow the winch to be operated from a minimum distance of 12 feet from the vehicle. The winch shall not interfere in any way with towing operations. A snatch block rated for use with the supplied winch shall be provided with the vehicle.</p>	<p>The specification states “...front mounted vehicle self-recovery winch...”. Recommend changing this to “...front deployed vehicle self-recovery winch...” to specify performance capability rather than design configuration. This change will allow other configurations (i.e., side mounted winches) to meet to performance expectation without limiting competition.</p>	<p>The winch requirements in the purchase description will be revised.</p>
3.11.1	<p><u>Axles.</u> All axles shall be powered. An inter-axle differential shall be provided, equipped with a lock-up device with automatic disengagement above 10 miles per hour (mph). The wheel offset shall be the same on all axles to allow interchangeability of wheel assemblies. All axles shall be properly vented and equipped with lubricated wheel bearings and seals adequate to meet fording requirement (see 3.13.2.6). Independent suspension will be given extra consideration as specified in the classified addenda to this purchase description. If tandem rear axles are provided, as much as feasible, the rear axles, differentials, and other components shall be interchangeable, between the two tandem axles.</p>	<p>Consider removing the requirement for “automatic disengagement above 10 miles per hour (mph)” or changing this requirement to allow for a warning system that notifies the operator when the lock-up device is engaged and the vehicle is being operated above 10 mph. There are many condition where having the lock-up device engaged at higher speeds is critical to the accomplishing the mission. The operator should make the decision as to whether or not disengage the lock-up device automatically. Recommend deleting “with automatic disengagement above 10 miles per hour (mph)”.</p>	<p>The axle requirements in the purchase description will be reviewed and likely changed.</p>
3.11.4	<p><u>Tires and Wheels.</u> The vehicle shall be equipped with single tire and wheel assemblies on each axle. The wheels shall be of a single-piece or bolt-together type construction, and conform to Tire and Rim Association recommendations for the type and size of tire furnished. All tire and wheel assemblies shall be balanced; and be identical. Tires and wheels shall meet requirements 119.1 and 120.1 of MIL STD 1180. The vehicle shall be equipped with</p>	<p>The run flat requirement for operation of “not less than 50 miles at not less than 50 mph” is very aggressive and will require development of solutions that are not currently available. Consider reducing the requirement to “not less than 30 miles at not less than 30 mph” as minimum performance requirement.</p>	<p>The run flat requirements will be revised in the purchase description to 30 miles per hour for 30 miles.</p>

	on-off road non-directional tread, tubeless, radial tires, with ratings conforming to Tire and Rim Association recommendations for the type and size of tire. Ballast or hydro-inflation of tires is not permissible. Run-flat inserts are required which shall allow the MMPV to travel not less than 50 miles at not less than 50 mph after the tire is flat. A spare tire and wheel assembly identical to those provided on the axles shall be furnished, and provided with the vehicle.	The testing requirements will also be revised.
3.11.6.3	<u>Glass.</u> All automotive glass, including the windshield, provided with the MMPV shall meet or exceed the crew and vehicle survivability requirements (see 3.16.10 and 3.17) and shall be of the “water white” type (threshold). Glass meeting or exceeding all requirements of the “Purchase Specification, Transparent Armor; ATPD 2352”, for the offered threat level is an objective. Technology, such as “peel plies,” to protect the front windshield from stone pecking damage will be given extra consideration. Gun ports in the windows are not desired.	The term “water white” is not recognized by us or our armor glass suppliers. Consider providing an alternative description or more clearly defining this term.
3.13.2.4	<u>Acceleration:</u> Capable of forward dash speed of 0-50 mph in not more than 18 seconds (threshold), and reverse of 0-20 mph in not more than 4 seconds (threshold). (12 seconds forward; 3 seconds reverse, objective)	Preliminary performance calculations indicate that the 0-50 mph forward dash speed of 18 seconds is aggressive and will cause excessive engine size relative to other vehicle performance characteristic requirements. Similar concern exists with requirement for 0-20 mph reverse dash speed of 4 seconds. Recommend more consistent acceleration requirements as follows; <ul style="list-style-type: none"> • Forward dash speed: 0-50 mph → 40 seconds • Reverse dash speed: 0-20 mph → 7 seconds
3.13.2.5	<u>Gradeability:</u> The MMPV shall be capable of ascending and descending longitudinal slopes of not less than 45% (threshold) and traversing side slopes of not less than 20 % (threshold). (55% longitudinal; 30% side, objective) The MMPV shall be capable of traversing an 18-inch vertical step.	These vehicles will operate in areas with significant vertical steps and other obstacles to be traversed that necessitate performance capability in excess of the 45% Threshold specified. Recommend that (1) this

	requirement not have Threshold and Objective criteria for longitudinal slopes, and (2) specify 60% longitudinal slope capability as the baseline requirement.	gradeability and stability.
3.13.2.6	<u>Fording:</u> The MMPV shall be capable of fording salt or fresh water to a depth of 36 inches (threshold) without kit or preparation. (40 inches, objective)	Recommend the objective fording depth be 48 inches. There is very little practical difference between the currently specified 36-inch Threshold requirement and the 40-inch Objective requirement.
3.13.2.10	Towing: The MMPV shall be capable of towing a vehicle of the same type. The MMPV towing a 10000-pound (GVW) pneumatic tired trailer, on dry roads shall maintain a speed of not less than 30 mph on a 3 percent grade; and of not less than 8 mph on a 30 percent grade. The MMPV, towing the same trailer, shall be capable of negotiating a 20 percent side slope. During towing operations, the MMPV shall be capable of full turn steering without damage to or interference with the trailer. The MMPV itself shall be capable of being towed at a sustained speed of not less than 40 mph on level, dry roads; and not less than 5 mph cross-country. It is desired that the MMPV be capable of being towed at a sustained speed of 60 mph on level, dry roads.	The two requirements in this paragraph (30 mph on 3% grade and 8 mph on 30% grade) result in significantly different performance capabilities. For performance consistency, recommend leaving the 30 mph on 3% grade as is (it is a realistic requirement) and changing the other to 4 mph on 30% grade (which is also a reasonable and realistic speed for this steep grade).

Legend:	Legal	Contracting	Technical
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NOTE: As this is a performance based specification offerors are reminded that each answer should not be regarded as design direction.

1. Reference: PROCNET posting, dated 02 Nov 2006

Question: Does the Government plan to issue a Draft RFP with Sections B – M? If not, can you provide draft bidder instructions and/or evaluation criteria?

A: The Government plans to post a draft of Sections C, L and M of the RFP.

2. Reference: PROCNET posting, dated 02 Nov 2006

Comment: The tentative schedule calls for delivery of MMPV test vehicles on 01 August 2007.

Question: How many test vehicles are required? Is this a First Article Test? Will the MMPV scope of work include system design and development?

A: The Government estimates requiring 5-7 test vehicles. FAR Provision 52.209-4, First Article Approval – Government Testing will be in the RFP/resultant contract. The MMPV scope of work does not include system design and development.

3. Reference: PROCNET posting, dated 02 Nov 2006

Comment: The approximate quantity for the MMPV program is initially 260.

Question: What is the delivery schedule? Will all 260 vehicles be included in the initial award? Does the Government plan to issue a base award with option quantities? Does the Government intend to award contracts to multiple Contractors?

A: The anticipated delivery schedule for the estimated 5-7 test units would begin 120 days after award of contract. No, 260 vehicles will not be included in the initial award. The Government anticipates an initial order quantity of 33 each. No, the Government does not plan to issue a base award with options. The Government anticipates awarding an ID/IQ contract. The Government intends to award one contract as a result of this solicitation.

4. Reference: PROCNET posting, dated 02 Nov 2006

Comment: The MMPV acquisition will be subject to the trade agreements acts per DFARS 225.401-70. The Trade Agreements Act requires that items supplied by

countries that are not exempt from the TAA must be substantially transformed in the U.S.

Question: How does the Government define substantially transformed? Is it acceptable for non-exempt countries to supply vehicle parts, weldments and/or assemblies as long as the vehicles are assembled in the US?

A: Substantially transformed refers to an item that is substantially transformed into a new and different item with a name, character, or use different from those before the change.

Example: All the major components of a computer, including the motherboard and hard drive, are imported. The computer's components then are put together in a simple "screwdriver" operation in the U.S. The computer is not considered substantially transformed in the U.S. under the Customs Standard, and must be marked with a foreign country of origin.

Example: A bicycle is assembled in the United States, and its frame is manufactured in the United States. Of the remaining parts of the bicycle (tires, derailleur, gear shift, etc.), some are manufactured in the United States and some are imported from foreign countries. Overall, U.S. costs constitute 75% of the total costs of manufacturing the product. The bicycle would be considered to have been last substantially transformed in the United States.

5. Reference: PROCNET posting, dated 02 Nov 2006

Question: What contract type will be used for the MMPV procurement: FFP, ID/IQ, CPFF or combination?

A: Government anticipates awarding one FFP ID/IQ.

6. Reference: USMC MRAP Solicitation M67854-07-R-5000

Question: Does the Government expect the MRAP procurement to impact the MMPV program schedule or acquisition strategy?

A: Unknown

7. Reference: MMPV Purchase Description ATDP-2372

Comment: Many requirements are not classified as threshold or objective.

Question: Is it correct to assume that all requirements are defined as objective unless noted as threshold?

A: NO. All requirements in the ATPD are to be met.

8. Purchase Description Sections 1.1, 3.4.4, 3.11.1, 3.11.6.6, 3.11.6.15, 3.13, 3.13.2.1, 3.13.2.2, 3.13.2.3, 3.16.1, and 3.16.8.

Comment: It is atypical to specify payload, suspension type, stowage space, exterior storage, scheduled maintenance intervals, average speed for range, sustained convoy speed, and reliability requirements in the classified annex. Many of these items are commonly published vehicle characteristics.

Question: Does the Government intend to transfer the above requirements from the classified annex to the purchase description when the final RFP is issued?

A: NO, per the Army's Operations Security review, these requirements will remain in the classified addenda to the purchase description, and will be incorporated as a classified annex to the RFP.

9. Reference: Purchase Description Section 1.2 Classification

Comment: This section refers to section 6.2 for vehicle type, class, crew and model. Section 6.2 does not specify any of the above classification data.

Question: Are classification data for the MMPV (type, class, crew, model) available?

A: The classification of the vehicle will be determined as described in paragraph 1.2. The PD will be revised to remove the reference to paragraph 6.2.

10. Reference: Purchase Description Section 1.2.1 Type

Comment: This section reserves a Type II classification for the MMPV

Question: Do all requirements in the purchase description apply to the Type I EOD variant? Will the final RFP specify a Type II variant? Are any KPPs for the Type II variant available?

A: All requirements apply to the Type I EOD variant. The RFP will be for the Type I variant only. There are no current plans to add a Type II variant, but the government reserves the right to do so at a later date.

11. Reference: Purchase Description Section 3.2.1 Materials

Comment: This section specifies that materials in the hull and armor shall be the same for all vehicles.

Question: Please clarify "same for all vehicles". Can the bidder use different materials for different parts of the hull and armor design as long as the same material is used for

production of each part for all vehicles? Does "same" apply to specification, supplier or both?

A: Vehicle components are to be of the same material from vehicle to vehicle, for example, the hood is required to be the same material for all vehicles. After production has started, the Government reserves the right to request certification of material specifications for any change in suppliers.

12. Reference: Purchase Description Section 3.4.1 Engine

Comment: This section specifies compliance with EPA emissions standards.

Question: What EPA emission standard is required for the engine? Will EPA emission standards apply for fuel with sulfur content at 3,000 ppm.

A: The Purchase Description will be updated to reflect that since the MMPV qualifies for a National Security Exemption to the EPA standards, compliance with the latest practicable EPA standards is desired, but not required.

13. Reference: Purchase Description Section 3.4.5 Exhaust System

Comment: This section specifies the point of exhaust shall be located and directed so as to prevent drawing of exhaust into the NBC Unit. However, the Purchase description does not specify requirements for an NBC protection system.

Question: Will an NBC protection requirement be included in the final RFP? If so, is this requirement available?

A: The MMPV is required to be able to operate in an NBC environment, paragraph 3.16.12. The NBC unit itself shall meet the requirements of NATO STANAG 4521 "Nuclear Biological, Chemical (NBC) Defence Factors in the Design, Testing and Acceptance of Military Equipment" and is to be provided by the contractor. Purchase Description will be updated to reflect this change.

14. Reference: Purchase Description Section 3.4.7 Electrical System

Comment: This section specifies the electrical system shall provide sufficient amperage to operate all electrical components of the vehicle simultaneously.

Question: Is the charging of the robot vehicle battery per 3.11.6.12 included in the simultaneous electric load?

A: Yes, the MMPV will be required to charge the robot battery. Purchase Description will be updated to reflect this change.

15. Reference: Purchase Description Section 3.11 Vehicle Hull or Chassis

Comment: This section specifies durability to withstand stress imposed in any operations.

Question: Is Parachute Heavy Drop included in the operations envisioned for the MMPV vehicles (ref 3.14.2.2)?

A: The Parachute Heavy Drop requirement will be deleted from the revised purchase description.

16. Reference: Purchase Description Section 3.11.4 Tires and Wheels

Comment: This section specifies that the run flat inserts shall allow the MMPV to travel not less than 50 miles at not less than 50 mph. Operating at 50 mph on run flat inserts is hazardous and may not be achievable with existing available RFI technology for the MMPV weight class.

Question: Are the speed and range requirements for RFI in the draft Purchase Description objective?

A: The Purchase Description will be revised to the following requirements: 30 miles at 30 miles per hour at Gross Vehicle Weight. The testing requirements are still under development.

17. Reference: Purchase Description Section 3.11.5 Service Brakes

Comment: This section specifies that the services brakes conform to FMVSS 121.

Question: Is it required that the Braking System meet European Union (E.U.) requirements of use on E.U. public highways? – i.e. a totally redundant braking system.

A: No, compliance with EU standards is not required.

18. Reference: Purchase Description Section 3.11.5.3 Increased Braking Ability

Comment: This section specifies an engine retarder shall be furnished that uses engine compression to assist dynamic braking. This requirement precludes the use of exhaust braking which offers potential integration, reliability and cost advantages.

Question: Does the Government plan to change this section to a performance based specification to allow alternative solutions such as exhaust braking?

A: The Purchase Description is intended to include alternative braking systems such as exhaust braking and will be revised to be more generic (i.e. "Driveline Retarding", "Engine Retarder," or "Exhaust Brake" per SAE J2627), any of which would meet the requirement.

19. Reference: Purchase Description Section 3.11.6.5 Ingress/Egress Points

Comment: This section specifies the rear door shall be provided with a window.

Question: Shall the rear access point be a door or is an alternate design such as a ramp acceptable? If so, must the ramp include a door with a window? Does the Government plan to change this section to a performance based requirement that allows alternative solutions for the rear access point?

A: Alternative solutions will be acceptable. The Purchase Description will be revised to “The rear face of the vehicle shall be provided with means to visually check the terrain and threat environment directly behind the vehicle.”

20. Reference: Purchase Description Section 3.11.6.14 Weapon Station

Comment: This section specifies the MMPV shall be provided with capability to accept CROWS or a ring and bearing type weapon mount ... the capability to switch between the two stations is desired.

Question: Will the Government furnish the CROWS and gunner protection kit for production? What are the applicable specifications? Does the capability to switch require that the stations are interchangeable? With or without tools/parts?

A: The PD will be revised to include the requirement for the MMPV to accept either a remote weapon station or the M1114 weapon ring mount. The Government method of acquisition is still under review.

21. Reference: Purchase Description Section 3.13.2.4 Acceleration

Comment: This section calls for forward acceleration 0-50 mph in 18 seconds and reverse acceleration 0-20 mph in 4 seconds. Achieving the forward and reverse acceleration will required significant development for most if not all existing vehicles in this weight class. For example, standard military truck transmission gear design precludes 20 mph reverse speed. The resultant high performance power train will increase vehicle weight and unit cost. Recommend changing this requirement to 30 mph forward and 10 mph reverse.

A: See revised PD for clarification.

22. Reference: Purchase Description Section 3.14.2 Transportability

Comment: This section specifies the design shall enable preparation and reassembly after to be accomplished in not more than 60 minutes (threshold).

Question: Is the total time to prepare and reassemble the MMPV 60 minutes or 120 minutes?

A: See revised PD for clarification.

23. Reference: Purchase Description Section 3.16.7.1 Maintainability

Comment: This section specifies that logistics support shall not be lower than DS level, as defined in AR 750-1. This implies that there is no organizational level of support.

Question: Clarify the design intent of this requirement

A: See revised PD for clarification.

24. Reference: Purchase Description Section 3.16.8.1 Vehicle Durability

Comment: This requirement is so broadly defined that it is not instructive as to any specific aspect of the durability requirement.

Question: How does the Government plan to verify this requirement?

A: See revised PD for clarification.

25. Reference: Purchase Description Section 3.17 Vehicle Survivability

Comment: This section defines vehicle survivability as no loss of ability to meet performance requirements. This requirement is so broad that it is not fully achievable. For example, the vehicle may lose ability to meet convoy speeds after small arms fire on the tires.

Question: Does the Government plan to define mission essential function failures for vehicle survivability?

A: See revised PD for clarification.